

Appl. No. 10/605,521
 Amdt. dated June 03, 2005
 Reply to Office action of February 17, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A printed circuit inductor of a printed circuit board with at least a
 5 first ~~wiring~~ layer and a second ~~wiring~~ layer comprising:
 a first conductive trace formed ~~on~~ in a first ~~wiring~~ layer of a printed circuit board;
 a second conductive trace formed ~~on~~ in a second ~~wiring~~ layer of ~~[[a]] the~~ printed
 circuit board, wherein the second layer is disposed below and parallel to the
 first layer, the layers being separated by an insulating material;
 10 a third conductive trace formed ~~on~~ in the first ~~wiring~~ layer and parallel to the first
 conductive trace;
 a fourth conductive trace formed ~~on~~ in the second ~~wiring~~ layer and parallel to the
 second conductive trace;
 a first via plug directly connected to a first end of the first conductive trace and to
 15 a first end of the second conductive trace;
 a second via plug directly connected to a second end of the second conductive
 trace and to a first end of the third conductive trace; and
 a third via plug directly connected to a second end of the third conductive trace
 and ~~[[a]] to a~~ first end of the fourth conductive trace;
 20 wherein the first conductive trace is electrically connected to the fourth
conductive trace through the first via plug, the second conductive trace, the
second via plug, the third conductive trace, and the third via plug with no
intervening connections.
~~wherein the first via plug, the second via plug and the third via plug are positioned~~
 25 ~~along two parallel lines; or the first via plug, the second via plug and the third~~
~~via plug are aligned but not positioned along two parallel lines; or the first via~~

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~~plug, the second via plug and the third via plug are not aligned.~~

2. (original) The inductor of claim 1 wherein the first via plug is perpendicular to the first
conductive trace, the second via plug is perpendicular to the second conductive
5 trace, and the third via plug is perpendicular to the third conductive trace.

3-8. (cancelled).

9. (currently amended) A printed circuit inductor of a printed circuit board having a first
10 ~~wiring~~ layer and a second ~~wiring~~ layer comprising:
a first conductive trace formed ~~on~~ in the first ~~wiring~~ layer;
a second conductive trace formed ~~on~~ in the second ~~wiring~~ layer, the second ~~wiring~~
layer substantially parallel to the first ~~wiring~~ layer, the second conductive trace
substantially not parallel to the first conductive trace;
15 a third conductive trace formed ~~on~~ in the first ~~wiring~~ layer and parallel to the first
conductive trace;
a fourth conductive trace formed ~~on~~ in the second ~~wiring~~ layer and parallel to the
second conductive trace;
a first via plug perpendicular to the ~~wiring layers~~ first and second layers and
20 directly connecting the first and second conductive traces;
a second via plug perpendicular to the ~~wiring layers~~ first and second layers and
directly connecting the second and third conductive traces; and
a third via plug perpendicular to the ~~wiring layers~~ first and second layers and
directly connecting the third and fourth conductive traces;
25 wherein the first conductive trace is electrically connected to the fourth conductive
trace through the first via plug, the second conductive trace, the second via
plug, the third conductive trace, and the third via plug with no intervening
connections.

Appl. No. 10/605,521
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10. (currently amended) The inductor of claim 9, wherein an angle formed in the plane of the first wiring layer between a vector from the third via plug to the first via plug and a vector from the third via plug to the second via plug is substantially a right angle.
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11. (currently amended) The inductor of claim 9, wherein an angle formed in the plane of the first wiring layer between a vector from the third via plug to the first via plug and a vector from the third via plug to the second via plug is substantially an acute angle.
- 10 12. (currently amended) The inductor of claim 9, wherein an angle formed in the plane of the first wiring layer between a vector from the third via plug to the first via plug and a vector from the third via plug to the second via plug is substantially an obtuse angle.